Positioning of Aquaculture in Blue Growth and Sustainable Development Goals Through New Knowledge, Ecological Perspectives and Analytical Solutions

ABSTRACT

Saleem Mustafa, Abentin Estim, Sitti Raehanah M. Shaleh, and Rossita Shapawi. 2018. Positioning of Aquaculture in Blue Growth and Sustainable Development Goals Through New Knowledge, Ecological Perspectives and Analytical Solutions. Aquacultura Indonesiana, 19 (1): 1-9. Aquaculture is undergoing a rapid phase of expansion as never before. Like any food-producing sector, there are environmental, social and economic implications of aquaculture development as well. It is imperative to identify actions and potential for promoting business ideas behind aquaculture systems that are in harmony with the environment even as this sector increases its contribution to food security and socio-economic welfare. This paper presents an in-depth analysis of the actual and potential role of aquaculture in supporting blue growth and achieving sustainable development goals. It emerges from the synthesis of information so generated that: 1) Aquaculture"s key role in sustainable development goals deserves to be adequately documented, backed by facts and figures, 2) Aquaculture"s contribution to each of the goals is qualitatively and quantitatively different, 3) Aquaculture is a diverse activity and, therefore, its impacts, especially from an environmental perspective, cannot be generalized across the whole sector, as these will vary with species, farming methods, environmental conditions at the location and the local socio-economic scenario. With its projected role in food security the aquaculture will continue to develop. However, this will be possible through scientific solutions focused on sustainability by informing best practices. As marine aquaculture moves further out to the sea new knowledge will be needed to understand environmental impacts and to support new farming systems. Similarly, data will also be needed to adapt aquaculture methods to changing climate. A systems approach to managing aquaculture is the way forward, a showcase of which is integrated multi-trophic aquaculture. The progress of aquaculture in meeting the

sustainable development goals will require a monitoring mechanism that the relevant agencies need to put in place.